

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	WC Docket No. 11-10
Modernizing the FCC Form 477 Data Program)	
)	

COMMENTS OF VIASAT, INC.

ViaSat, Inc. (“ViaSat”) submits these comments in response to the Further Notice of Proposed Rulemaking (“*FNPRM*”) released by the Commission on August 4, 2017,¹ which seeks comment on improving the FCC’s Form 477 data collection program.

ViaSat is a leading provider of communications solutions across a wide variety of technologies (both terrestrial and satellite), and it uses a fleet of spacecraft to provide broadband service in the Ka band to fixed and mobile terminals.² ViaSat has revolutionized the satellite industry by reducing the “cost per bit” of delivering broadband service, providing a high-quality service to end users, and affording millions of Americans an effective competitive alternative to wired and wireless terrestrial services.

Today, ViaSat connects over three million devices per month and offers services currently achieving the 25/3 Mbps speed threshold. In the near future, ViaSat expects to reach 100-plus Mbps broadband services following the recent launch of ViaSat-2 on June 1, 2017. In the 2020 timeframe, less than a decade after entering the satellite broadband industry, ViaSat will

¹ *In re Modernizing the FCC Form 477 Data Program*, WC Docket No. 11-10, Further Notice of Proposed Rulemaking (rel. August 4, 2016) (“*FNPRM*”).

² In the near future, ViaSat will expand services to include operations in the V band frequencies to meet growing customer demand and overcome congestion in the Ka band. These issues are currently under consideration in the pending Spectrum Frontiers proceeding. *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*, GN Docket No. 14-177, et al., Report and Order and Further Notice of Proposed Rulemaking, FCC 16-89 (rel. July 14, 2016).

commence service with its third-generation spacecraft, ViaSat-3, offering speeds and capacity well above the 100 Mbps range to keep pace with consumer demand.

I. Form 477 Report Intervals

ViaSat welcomes this opportunity for the industry to provide comments regarding the semi-annual filing of Form 477. In particular, ViaSat applauds the Commission's emphasis on reducing technical and administrative burdens faced by the industry when filing Form 477. Thus, as an initial matter, ViaSat endorses the Commission's proposal to transition to an annual collection of Form 477 data.³ Filing the form annually would be more manageable and efficient, while providing the Commission, state commissions, and other agencies the information they need to evaluate broadband deployment and adoption. ViaSat also believes that an annual filing would fairly capture relevant data about its services. Especially in the context of satellite, the data's utility does not diminish materially during the course of the year.

II. Geographic Information System Shapefile Reporting

At times, the Form 477 has placed a substantial burden on ViaSat. ViaSat agrees that as a satellite broadband provider ViaSat has a nationwide footprint⁴ with a potential subscriber base that includes every household in the United States. This means that when ViaSat files Form 477, it has been required to report far more census block-level data than other providers. In ViaSat's experience, the corresponding spreadsheet file can become unwieldy at best, and at worst, is often rejected as too large by the FCC's filing system. In the past, ViaSat has attempted to take advantage of the option to file abbreviated fixed broadband deployment data for each state.⁵

³ See *FNPRM* at paras. 56-57.

⁴ See *FNPRM* at para. 45.

⁵ See *FNPRM* at paras. 45-47.

However, ViaSat believes that this option serves to obfuscate rather than avail the Commission of complete Form 477 reporting when service level boundaries do not align with state geographic boundaries. As a result, the submission of a single block-level record for each state in the context of satellite services may not be sufficient in all cases.

ViaSat proposes instead that for purposes of satellite broadband deployment data the Commission accept a Geographic Information System (GIS) shapefile format in lieu of any additional census block-level reporting.⁶ GIS shapefiles are industry standard files that both ViaSat and the Commission use regularly. The GIS shapefile provides a complete subscriber coverage and deployment picture down to the local level across the country. Commission staff are fully equipped to manipulate such data to obtain granular information about competition and service availability. Especially in the context of satellite services that can potentially serve the entire country, producing the GIS shapefile provides the most accurate information about service deployment without the need to make assumptions about coverage.⁷ ViaSat also emphasizes in response to the Commission's inquiries that within a "polygon of coverage," all homes are eligible to receive similar service.⁸

ViaSat acknowledges that the administrative and technical burdens invited by endorsing filing the GIS shapefile format may be higher than the current obligation imposed on satellite providers to file a single block-level record for each state. Even so, ViaSat believes that the GIS

⁶ See *FNPRM* at para. 38.

⁷ In response to the Commission's inquiry in paragraph 48 of the *FNPRM*, we emphasize further that even if the Commission does not allow providers of fixed broadband service to file GIS shapefiles in lieu of census block-level data, satellite providers like ViaSat should be permitted to do so. Satellite providers have a potential coverage area that extends far beyond that of terrestrial networks, creating burdens for satellite providers of producing census block-level data that exceeds in scope similar reporting for terrestrial network providers.

⁸ See *FNPRM* at para. 38.

shapefile format is the more accurate reporting method in the context of satellite services, and, therefore fully endorses this approach.

III. Protection of Confidential Information

ViaSat also urges the Commission to avoid adopting any policies that place confidential information of providers at risk. In the *FNPRM*, the Commission asks “whether certain types of disaggregated subscriber data should be made public after a certain period of time has passed.”⁹

The answer in the context of satellite broadband is a resounding no. In the context of the satellite industry, any data released speaks volumes due to the limited number of market participants.

ViaSat competes with only one other nationwide satellite internet service provider. If the Commission were to release ViaSat’s data, even on a disaggregated basis, ViaSat’s competitors would be able to easily identify ViaSat’s data. Form 477 data, including subscriber data, submitted by satellite companies must not be made public to guard against anti-competitive misuse of the information.

IV. New Services and Additional Users

Finally, the ability of any network provider to accommodate different combinations of users and service packages in a given geographic area (such as a census block) depends on a complex series of tradeoffs and ever-changing conditions. That ability in any given instance also depends on the other purposes (besides consumer broadband) for which that network may be used or planned to be used. Satellite is no different. We, therefore, do not believe it is feasible to reliably provide the additional information described in paragraph 33 of the *FNPRM* with respect to new services and additional users in a given census block.

⁹ See *FNPRM* at para. 54.

For these reasons, ViaSat respectfully requests that the Commission incorporate ViaSat's comments into any final order modernizing the FCC Form 477 data program.

Respectfully submitted,

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October 10, 2017